

Old Colony Planning Council

Frank P. Staffier
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Pasquale Ciaramella
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April 6, 2018

Mr. Marc Tisdelle, P.E.
Interim Town Manager – Town of Stoughton
10 Pearl Street
Stoughton, MA. 02072

Dear Mr. Tisdelle,

Per the Town's request, the Old Colony Planning Council has completed an assessment of traffic conditions on Island Street and Mill Street in Stoughton, with specific focus on assisting the Town with applying for a Heavy Commercial Vehicle Exclusion (HCVE) permit from MassDOT for these roadways. This traffic study was completed through the Old Colony Metropolitan Planning Organization's Local Highway Technical Assistance Program. Please find enclosed a technical memorandum that summarizes the results of the data collection and identifies options for potential HCVE exclusions on Island Street, Mill Street, and Pine Street in the Town of Canton.

Old Colony Planning Council staff will continue to assist the Town in presenting the findings of this study to the Boards of Selectmen in Stoughton and Canton. It will be the responsibility of the Towns of Stoughton and Canton to select which option to pursue, and to request any Heavy Commercial Vehicle Exclusion from the Massachusetts Department of Transportation.

Should you have any questions or comments about this proposed amendment or the original Island Street traffic study or its findings, please contact Bill McNulty or (508) 583-1833 ext. 207, or by e-mail at wmcnulty@ocpcrpa.org.

Sincerely,

Charles Kilmer, AICP
Assistant Director / Transportation Program Manager

Cc:

Chief Donna M. McNamara, Stoughton Police Department
Mr. Craig A. Horsfall, P.E., Interim Town Engineer, Stoughton
Mr. Robert J. O'Regan, Chairman, Stoughton Board of Selectmen
Ms. Noreen O'Toole, Stoughton Town Planner and Chairperson, Old Colony Joint Transportation Committee
Mr. Thomas Fitzgerald, Superintendent, Stoughton Department of Public Works
Mr. Robert Kuver, Stoughton Delegate to Old Colony Planning Council
Mr. Forest Lindwall, Stoughton Alternate to Old Colony Planning Council
Ms. Mary-Joe Perry, District Highway Director, MassDOT District Five
Mr. Derek Krevat, MassDOT Office of Transportation Planning, Old Colony MPO Liaison
Mr. Nelson Hoffman, Program Development Team Leader, Federal Highway Administration

Enclosures:

Technical Memorandum – Island Street and Mill Street Traffic Study and HCVE Analysis
Maps (2) of Potential HCVE Zones and Preferred Truck Routes
Traffic Count Data for Island Street and Mill Street in Stoughton
2012 Massachusetts Amendments to the 2009 MUTCD Section 10A-9 – Heavy Commercial Vehicle Exclusions

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TECHNICAL MEMORANDUM

Date: April 6, 2018

To: Marc Tisdelle, P.E., Town of Stoughton Interim Town Manager

From: Charles Kilmer, AICP, Assistant Director / Transportation Program Manager

Subject: Island Street / Mill Street Traffic Study and Heavy Commercial Vehicle Exclusion (HCVE) Analysis

Per the Town's request, the Old Colony Planning Council has completed an assessment of traffic conditions on Island Street and Mill Street in Stoughton, with specific focus on assisting the Town with applying for a Heavy Commercial Vehicle Exclusion (HCVE) permit from MassDOT for these roadways. This traffic study was completed through the Old Colony Metropolitan Planning Organization's Local Highway Technical Assistance Program.

Island Street and Mill Street are both two-lane roadways, with developed residential and industrial land uses. Lane widths are generally 10 to 12 feet wide, and neither roadway has shoulders. Island Street has a sidewalk on the southbound side of the roadway, beginning at Mill Street and continuing into Canton. Island Street is functionally classified as an Urban Collector, while Mill Street is classified as a local roadway.

Traffic Volumes, Prevailing Speeds, and Heavy Vehicles

The following table summarizes the traffic data that was collected on Island Street and Mill Street using automatic traffic records during the week of March 27 – March 31, 2017.

Table: Existing Traffic Volumes, Speeds, and Percentage of Heavy Vehicles

	Average Weekday Volume	Average Speed	85th Percentile Speed	Posted Speed Limit	% heavy Vehicles
Island Street, north of Central Street (Route 27)	3,311	20 MPH	33 MPH	25 MPH	6.4%
Island Street, at Canton Town Line	3,981	25 MPH	38 MPH	25 MPH	6.7%
Mill Street, south of Island Street	1,682	24 MPH	37 MPH	25 MPH	7.7%

Massachusetts Warrants for Heavy Commercial Vehicle Exclusion Zones

The 2012 Massachusetts Amendments to the 2009 Manual on Uniform Traffic Control Devices prescribed the following warrants for consideration of a Heavy Commercial Vehicle Exclusion (HCVE) zone.

- A. A volume of heavy commercial vehicles, which usually is in the range of five (5) to eight (8) percent, reduces the utilization of the facility and is cause for a substantial reduction in capacity or safety.
- B. The condition of the pavement structure of the route to be excluded indicates that further repeated heavy wheel loads will result in severe deterioration of the roadway. (Subject to Department review)
- C. Notwithstanding the foregoing, in certain instances where land use is primarily residential in nature and a municipality has requested exclusion only during hours of darkness, a specific night exclusion may be granted.

The percentage of heavy vehicle traffic on Island Street satisfied the warrant for consideration of a Heavy Commercial Vehicle Exclusion.

Options for HCVE Zones

Since Island Street travels into the Town of Canton (becoming Pine Street in Canton), the approval of the Town of Canton is ultimately required before the Massachusetts Department of Transportation can consider a Heavy Commercial Vehicle Exclusion request for Island Street. Through a collaborate planning process with the Town of Stoughton and the Town of Canton the following two options have been identified for facilitating a potential Heavy Commercial Vehicle Exclusion (HCVE) on Island Street and Mill Street in Stoughton while avoiding impacts to densely developed residential areas.

Option #1 for Stoughton and Canton HCVE Zones:

- Proposed HCVE Zones:
 - All of Mill Street in Stoughton, from Central Street (Route 27) to Island Street
 - All of Island Street in Stoughton, from Central Street (Route 27) to Canton Town Line
 - All of Pine Street in Canton, from Stoughton Town Line to Bolivar Street
- Proposed Alternate Truck Route:
 - Bolivar Street, from Pine Street to Pleasant Street Roundabout, Canton
 - Pleasant Street, from Roundabout to Stoughton Town Line, Canton
 - Pearl Street, from Canton Town Line to Central Street, Stoughton
 - Central Street, from Pearl Street to Mill Street, Stoughton
- Advantages of Option 1:
 - Avoids potential confusion of truck drivers with entirety of Pine Street restricted vs. partial restriction
 - Reduces truck traffic on Island Street and Mill Street, improving safety for pedestrians and bicyclists

- Disadvantages of Option 1:
 - Increased truck traffic through roundabout and residential areas in area of Pleasant Street, Bolivar Street, and Lincolnshire Drive
 - Challenge for westbound trucks on Bolivar Street (trucks cannot proceed west on Bolivar Street due to low clearance railroad bridge)
 - May increase heavy vehicle traffic by dense residential development on Will Drive, as drivers believe they cannot use Pine Street / Island Street

Option #2 for Stoughton and Canton HCVE Zones:

- Proposed HCVE Zones:
 - All of Mill Street in Stoughton, from Central Street (Route 27) to Island Street
 - All of Island Street in Stoughton, from Central Street (Route 27) to Canton Town Line
 - Pine Street in Canton, from Stoughton Town Line to North Street
- Proposed Alternate Truck Route:
 - Pine Street, between North Street and Bolivar Street, Canton
 - Bolivar Street, from Pine Street to Pleasant Street Roundabout, Canton
 - Pleasant Street, from Roundabout to Stoughton Town Line, Canton
 - Pearl Street, from Canton Town Line to Central Street, Stoughton
 - Central Street, from Pearl Street to Mill Street, Stoughton
- Advantages of Option #2
 - Allows westbound trucks on Bolivar Street an outlet to avoid low clearance issue
 - Allows North Street via Pine Street to be preferred access to Industrial Park
 - Reduces truck traffic on Island Street and Mill Street, improving safety for pedestrians and bicyclists
- Disadvantages of Option #2:
 - Increased truck traffic through roundabout and residential areas in area of Pleasant Street, Bolivar Street, and Lincolnshire Drive
 - Trucks traveling south must either turn around inside Industrial Park, or exit through residential neighborhood on Will Drive o Pleasant Street

These options were identified as potential options for reducing impacts from heavy vehicles on Island Street in Stoughton. While reducing negative impacts in one area, increased negative impacts in other residential areas surrounding the North Street Industrial Park may result as an unintended consequence of an HCVE Zone on Island Street and Pine Street. Commercial vehicles traveling to and from the Industrial Park, as well as any other location along Island Street, Mill Street, and Pine Street may continue to use the roadway as they have business there. It is ultimately the responsibility of the Town of Stoughton and Town of Canton to identify the preferred option for their communities, and to proceed forward with requesting such a Heavy Commercial Vehicle Exclusion Zone Permit from MassDOT, as appropriate.

In the Appendix to this Technical Memorandum, please find the results of the traffic data collection, the procedures for requesting a Heavy Commercial Vehicle Exclusion in Massachusetts, and maps displaying the options for Heavy Commercial Vehicle Exclusion zones and preferred truck routes. The Town may use this traffic data as supporting material for its request for a Heavy Commercial Vehicle Exclusion on Island Street and Mill Street. It is recommended that the Town of Stoughton contact MassDOT District Five and work with them on pursuing a Heavy Commercial Vehicle Exclusion for Island Street and Mill Street in Stoughton and Pine Street in Canton.

Should you have any questions or comments about this traffic study or its findings, please contact Bill McNulty or (508) 583-1833 ext. 207, or by e-mail at wmcnulty@ocpcrpa.org.

Appendix

- A. Traffic Count Data for Island Street and Mill Street in Stoughton
- B. Maps (2) of Potential HCVE Zones and Preferred Truck Routes
- C. 2012 Massachusetts Amendments to the 2009 MUTCD Section 10A-9 – Heavy Commercial Vehicle Exclusions